ABSTRACT OF THE DISCLOSURE

A proton exchange membrane for a fuel cell is prepared from a polyimidazole polymer having the formula:

$$R_1$$
 R_2
 R_3
 R_3
 R_4
 R_4

wherein R₁-R₃ are independently H, a halogen, an alkyl or a substituted alkyl.

X₁ and X₂ are independently or an electron withdrawing group such as CN.

The membrane may be doped to alter its conductivity. The membrane may be prepared from a copolymer of the polyimidazole. Also disclosed is a fuel cell incorporating the membrane.